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EXAMINER	
PREVIL, DANIEL	
ART UNIT	**PAPER NUMBER**
2636	16

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/904,419	KAUFFMAN, SCOTT	
	Examiner	Art Unit	
	Daniel Previl	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-67* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-67* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to communication filed on February 23, 2004.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark (US 4,568,937) in view of Miyamoto et al. (US 6,535,143).

Regarding claim 1, Clark discloses an apparatus for activating an inductance loop vehicle detector (abstract) comprising: a magnet (inductance loop) (col. 6, line 62); the magnet to a vehicle at a position that will cause the magnet to activate an inductance loop vehicle detector when the vehicle moves proximal to an inductance loop of the inductance loop vehicle detector (inductance profile of a vehicle, exhibiting a magnetic effect passing over a loop. As the vehicle is leaving the loop the inductance first increases, which a conventional detector tracks rapidly and then, as the vehicle finally leaves, decreases) (col. 6, lines 60-68).

Clark discloses all the limitations above but fails to explicitly disclose a mount for attaching the magnet to a vehicle.

However, Miyamoto discloses a mount for attaching the magnet to a vehicle (a transponder is mounted on a vehicle) (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Miyamoto in Clark. Doing so would accurately attach the transponder to a vehicle to detect the presence of a vehicle passing a sensing area wherein users can control efficiently incoming and outgoing vehicles for safety purposes as taught by Miyamoto (col. 1, lines 37-66).

Regarding claim 2, the above combination discloses all the limitations in claim 1 and Miyamoto discloses a vehicle is selected from a bicycle (col. 10, line 52). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Miyamoto in Clark. Doing so would accurately attach the transponder to a vehicle to detect the presence of a vehicle passing a sensing area wherein users can control efficiently incoming and outgoing vehicles for economical purposes as taught by Miyamoto (col. 1, lines 37-66).

Regarding claim 3, Clark discloses the magnet is a permanent magnet (col. 6, lines 60-65).

Regarding claim 4, the above combination discloses all the limitations in claim 1 but fails to specify a group consisting of: a ceramic magnet, a neodymium-iron-boron magnet, a samarium-cobalt magnet,

and a magnet formed of an alloy of aluminum, nickel, and cobalt. Since, Clark discloses an induction loop (col. 2, line 38-42). It is well known in the art to select the magnet from ceramic magnet, neodymium-iron-boron magnet and samarium-cobalt magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the magnet from ceramic magnet, neodymium-iron-boron magnet and samarium-cobalt magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 5, the above combination discloses all the limitations in claim 1 but fails to specify that the magnet is a grade 5 ceramic magnet. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art to select the magnet from a grade 5 ceramic magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the magnet from a grade 5 ceramic magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 6, the above combination discloses all the limitations in claim 1 but fails to specify that the magnet has a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e. Since, Clark

discloses an induction loop (col. 2, lines 38-42). It is well known in the art for the magnet to have a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 7, the above combination discloses all the limitations in claim 1 but fails to specify a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art for the magnet to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 8, Clark discloses the magnet is an electromagnet (col. 1, line 58).

Regarding claim 9, the above combination discloses all the limitations in claim 1 but fails to specify the magnet includes a protective coating. Since, Clark discloses induction loop installation buried approximately 50mm below the road surface (col. 1, lines 9-12). It is well known in the art to have a protecting coating to cover the induction loop in the road surface in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 10, Clark discloses a conducting material (steel) (col. 2, line 3)

Regarding claim 11Clark discloses tin, nickel or chrome (steel) (col. 2, line 3).

Regarding claim 12, Clark discloses a non-conductive material (tire) (col. 2, line 3).

Regarding claim 13, Clark discloses the coating is formed from plastic (tire) (col. 2, line 3).

Regarding claim 14, Clark discloses an adhesive material, brackets, and hook and loop fastener (fig. 1-fig. 3).

Regarding claim 15, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses adhesive coating on two opposing surfaces (fig. 2).

Regarding claim 16, the above combination discloses all the limitations in claim and Miyamoto further discloses the mount includes a corrugated tie (fig. 2)

Regarding claim 17, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses the mount is integrally formed with the vehicle (fig. 2, ref. 30).

3. Claims 18-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark (US 4,568,937) in view of Miyamoto (US 6,535,143).

Regarding claim 18, Clark discloses an apparatus for activating an inductance loop vehicle detector (abstract) comprising: a magnet (inductance loop) (col. 6, line 62); the magnet to a vehicle at a position that will cause the magnet to activate an inductance loop vehicle detector when the vehicle moves proximal to an inductance loop of the inductance loop vehicle detector and moving the vehicle proximal to an inductance loop of the inductance loop vehicle detector (inductance profile of a vehicle, exhibiting a magnetic effect passing over a loop. As the vehicle is leaving the loop the inductance first increases, which a conventional

detector tracks rapidly and then, as the vehicle finally leaves, decreases) (col. 6, lines 60-68).

Clark discloses all the limitations above but fails to explicitly disclose a mount for attaching the magnet to a vehicle.

However, Miyamoto discloses a mount for attaching the magnet to a vehicle (a transponder is mounted on a vehicle) (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Miyamoto in Clark. Doing so would accurately attach the transponder to a vehicle to detect the presence of a vehicle passing a sensing area wherein users can control efficiently incoming and outgoing vehicles for economical purposes as taught by Miyamoto (col. 1, lines 37-66).

Regarding claim 19, Clark discloses the magnet is a permanent magnet (col. 6, lines 60-65).

Regarding claim 20, the above combination discloses all the limitations in claim 1 but fails to specify a group consisting of: a ceramic magnet, a neodymium-iron-boron magnet, a samarium-cobalt magnet, and a magnet formed of an alloy of aluminum, nickel, and cobalt. Since, Clark discloses an induction loop (col. 2, line 38-42). It is well known in the art to select the magnet from ceramic magnet, neodymium-iron-boron magnet and samarium-cobalt magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in

the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the magnet from ceramic magnet, neodymium-iron-boron magnet and samarium-cobalt magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 21, the above combination discloses all the limitations in claim 1 but fails to specify that the magnet is a grade 5 ceramic magnet. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art to select the magnet from a grade 5 ceramic magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the magnet from a grade 5 ceramic magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 22, the above combination discloses all the limitations in claim 1 but fails to specify that the magnet has a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art for the magnet to have a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 23, the above combination discloses all the limitations in claim 1 but fails to specify a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art for the magnet to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 24, Clark discloses the magnet is an electromagnet (col. 1, line 58).

Regarding claim 25, the above combination discloses all the limitations in claim 1 but fails to specify the magnet includes a protective coating. Since, Clark discloses induction loop installation buried approximately 50mm below the road surface (col. 1, lines 9-12). It is well known in the art to have a protecting coating

to cover the induction loop in the road surface in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 26, Clark discloses a conducting material (steel) (col. 2, line 3).

Regarding claim 27, Clark discloses tin, nickel or chrome (steel) (col. 2, line 3).

Regarding claim 28, Clark discloses a non-conductive material (tire) (col. 2, line 3).

Regarding claim 29, Clark discloses the coating is formed from plastic (tire) (col. 2, line 3).

Regarding claim 30, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses the magnet is attached using a mount (fig. 2, ref. 30).

Regarding claim 31, Clark discloses an adhesive material, brackets, and hook and loop fastener (fig. 1-fig. 3).

Regarding claim 32, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses adhesive coating on two opposing surfaces (fig. 2).

Regarding claim 33, the above combination discloses all the limitations in claim and Miyamoto further discloses the mount includes a corrugated tie (fig. 2).

Regarding claim 34, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses the mount is integrally formed with the vehicle (fig. 2, ref. 30).

4. Claims 35-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Miyamoto et al.

Regarding claim 35, Clark discloses an apparatus for activating an inductance loop vehicle detector (abstract) comprising: manufacturing a vehicle (col. 6, lines 67-69); the magnet to a vehicle at a position that will cause the magnet to activate an inductance loop vehicle detector when the vehicle moves proximal to an inductance loop of the inductance loop vehicle detector (inductance profile of a vehicle, exhibiting a magnetic effect passing over a loop. As the vehicle is leaving the loop the inductance first increases, which a conventional detector tracks rapidly and then, as the vehicle finally leaves, decreases) (col. 6, lines 60-68).

Clark discloses all the limitations above but fails to explicitly disclose a mount for attaching the magnet to a vehicle.

However, Miyamoto discloses a mount for attaching the magnet to a vehicle (a transponder is mounted on a vehicle) (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Miyamoto in Clark. Doing so would accurately attach the transponder to a vehicle to detect the presence of a vehicle passing a sensing area wherein users can control efficiently incoming and outgoing vehicles for safety purposes as taught by Miyamoto (col. 1, lines 37-66).

Regarding claim 36, Clark discloses the magnet is a permanent magnet (col. 6, lines 60-65).

Regarding claim 37, the above combination discloses all the limitations in claim 1 but fails to specify a group consisting of: a ceramic magnet, a neodymium-iron-boron magnet, a samarium-cobalt magnet, and a magnet formed of an alloy of aluminum, nickel, and cobalt. Since, Clark discloses an induction loop (col. 2, line 38-42). It is well known in the art to select the magnet from ceramic magnet, neodymium-iron-boron magnet and samarium-cobalt magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the magnet from ceramic magnet, neodymium-iron-boron magnet and samarium-cobalt

magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 38, the above combination discloses all the limitations in claim 1 but fails to specify that the magnet is a grade 5 ceramic magnet. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art to select the magnet from a grade 5 ceramic magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the magnet from a grade 5 ceramic magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 39, the above combination discloses all the limitations in claim 1 but fails to specify that the magnet has a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art for the magnet to have a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e in order to ensure a clean

atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 40, the above combination discloses all the limitations in claim 1 but fails to specify a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art for the magnet to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 41, Clark discloses the magnet is an electromagnet (col. 1, line 58).

Regarding claim 42, the above combination discloses all the limitations in claim 1 but fails to specify the magnet includes a protective coating. Since, Clark discloses induction loop installation buried approximately 50mm below the road surface (col. 1, lines 9-12). It is well known in the art to have a protecting coating to cover the induction loop in the road surface in order to ensure a clean atmosphere performance that

is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 43, Clark discloses a conducting material (steel) (col. 2, line 3).

Regarding claim 44, Clark discloses tin, nickel or chrome (steel) (col. 2, line 3).

Regarding claim 45, Clark discloses a non-conductive material (tire) (col. 2, line 3).

Regarding claim 46, Clark discloses the coating is formed from plastic (tire) (col. 2, line 3).

Regarding claim 47, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses the magnet is attached using a mount (fig. 2, ref. 30).

Regarding claim 48, Clark discloses an adhesive material, brackets, and hook and loop fastener (fig. 1-fig. 3).

Regarding claim 49, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses adhesive coating on two opposing surfaces (fig. 2).

Regarding claim 50, the above combination discloses all the limitations in claim and Miyamoto further discloses the mount includes a corrugated tie (fig. 2).

Regarding claim 51, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses the mount is integrally formed with the vehicle (fig. 2, ref. 30).

5. Claims 52-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Miyamoto et al.

Regarding claim 52, Clark discloses an apparatus for activating an inductance loop vehicle detector (abstract) comprising: the magnet to a vehicle at a position that will cause the magnet to activate an inductance loop vehicle detector when the vehicle moves proximal to an inductance loop of the inductance loop vehicle detector (inductance profile of a vehicle, exhibiting a magnetic effect passing over a loop. As the vehicle is leaving the loop the inductance first increases, which a conventional detector tracks rapidly and then, as the vehicle finally leaves, decreases) (col. 6, lines 60-68).

Clark discloses all the limitations above but fails to explicitly disclose a mount for attaching the magnet to a vehicle.

However, Miyamoto discloses a mount for attaching the magnet to a vehicle (a transponder is mounted on a vehicle) (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Miyamoto in Clark. Doing so would accurately attach the transponder to a vehicle to detect the presence of a vehicle passing a sensing area wherein users can control efficiently incoming and outgoing vehicles for safety purposes as taught by Miyamoto (col. 1, lines 37-66).

Regarding claim 53, Clark discloses the magnet is a permanent magnet (col. 6, lines 60-65).

Regarding claim 54, the above combination discloses all the limitations in claim 1 but fails to specify a group consisting of: a ceramic magnet, a neodymium-iron-boron magnet, a samarium-cobalt magnet, and a magnet formed of an alloy of aluminum, nickel, and cobalt. Since, Clark discloses an induction loop (col. 2, line 38-42). It is well known in the art to select the magnet from ceramic magnet, neodymium-iron-boron magnet and samarium-cobalt magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the magnet from ceramic magnet, neodymium-iron-boron magnet and samarium-cobalt magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 55, the above combination discloses all the limitations in claim 1 but fails to specify that the magnet is a grade 5 ceramic magnet. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art to select the magnet from a grade 5 ceramic magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the magnet from a grade 5 ceramic magnet in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 56, the above combination discloses all the limitations in claim 1 but fails to specify that the magnet has a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art for the magnet to have a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a total flux of at least 20,000 maxwells and a maximum energy product of at least 6.5 MGO_e in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 57, the above combination discloses all the limitations in claim 1 but fails to specify a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds. Since, Clark discloses an induction loop (col. 2, lines 38-42). It is well known in the art for the magnet to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 58, Clark discloses the magnet is an electromagnet (col. 1, line 58).

Regarding claim 59, the above combination discloses all the limitations in claim 1 but fails to specify the magnet includes a protective coating. Since, Clark discloses induction loop installation buried approximately 50mm below the road surface (col. 1, lines 9-12). It is well known in the art to have a protecting coating to cover the induction loop in the road surface in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment. So it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have a residual induction of at least 3000 gauss, and a coercive force of at least 2200 oersteds in order to ensure a clean atmosphere performance that is unaffected by dust, corrosion, moisture in the environment.

Regarding claim 60, Clark discloses a conducting material (steel) (col. 2, line 3).

Regarding claim 61, Clark discloses tin, nickel or chrome (steel) (col. 2, line 3).

Regarding claim 62, Clark discloses a non-conductive material (tire) (col. 2, line 3).

Regarding claim 63, Clark discloses the coating is formed from plastic (tire) (col. 2, line 3).

Regarding claim 64, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses the magnet is attached using a mount (fig. 2, ref. 30).

Regarding claim 65, Clark discloses an adhesive material, brackets, and hook and loop fastener (fig. 1-fig. 3).

Regarding claim 66, the above combination discloses all the limitations in claim 1 and Miyamoto further discloses adhesive coating on two opposing surfaces (fig. 2).

Regarding claim 67, the above combination discloses all the limitations in claim and Miyamoto further discloses the mount includes a corrugated tie (fig. 2).

Response to Arguments

6. Applicant's arguments with respect to claims 1-67 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lees (US 6,345,228) discloses a road vehicle sensing apparatus and signal processing apparatus therefore.

Riesenberg et al. (US 3,949,252) discloses a vehicle wheel rotation speed measuring system.

Prohaska (US 5,201,111) discloses a method of manufacturing an electric motor.

Gebert et al. (US 5,396,234) discloses a validation checking in traffic monitoring equipment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is 703 305-1028. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on 703 305- 4717. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9314 for regular communications and 703 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

Daniel Previl
Examiner
Art Unit 2632

DP
March 16, 2004

JEFFERY HOFSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600